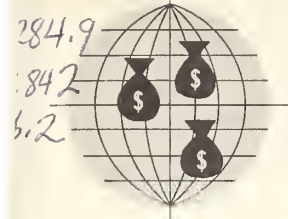


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## Current Situation and Long-Term Trends

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By O. Halbert Goolsby

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This report continues the series formerly entitled Foreign Gold and Dollar Reserves. It includes a Global Survey of the current external financial situations of the various countries of the free world, as did former reports. Also included in this report is an analysis of the relationship between commercial exports of U.S. agricultural commodities and international liquidity.

The data on financial reserves have been broadened to include not only gold and U.S. dollars but also other very important forms of international purchasing power. (See table 1.) In addition to the current situation, this report includes data on the long-term movement of reserves. Insofar as known, this is the first time this kind of information has been developed. An appendix discusses the procedures used in developing this information and provides technical definitions of the other items in table 1.

### GLOBAL SURVEY

#### Current Situation

Europe (and Australia, New Zealand, and Canada).--Measured by their total holdings of external reserves (gold, dollars, convertible foreign exchange) the nations of Western Europe continue to be by far the best markets for U.S. agricultural and industrial commodities. During 1963 there were substantial gains (on an absolute basis) in the total external reserves of France, Germany, Denmark, Switzerland, and Belgium. France's increase of \$859 million was the largest of any nation in the world and represents a 21 percent increase over reserves held at the end of 1962. Germany had the

Table 1.--International gold and foreign exchange reserves of the free world

Country and area	Reserves as of December 31, 1963				Movement during decade 1953 through 1962	
	Total <u>1/</u>	Change during past year	Ratio of reserves to annual imports	Reserves held as gold <u>2/</u>	Long-term trend (Average annual change) <u>3/</u>	Degree of variation from trend
	Mil. U.S. <u>dol.</u>	Mil. U.S. <u>dol.</u>	Pct.	Pct.	Mil. U.S. <u>dol.</u>	
<u>Western Europe</u>						
Common Market.....	19,887	1,531	49.3	69.9	---	---
France.....	4,908	859	56.2	73.9	284.0	high
Germany.....	7,654	690	58.8	57.4	615.4	low
Italy.....	3,283	-361	43.1	78.3	369.8	average
Netherlands.....	2,102	156	35.2	85.8	94.4	average
Belgium <u>4/</u> .....	1,940	187	39.0	77.8	76.8	low
Austria.....	1,229	148	73.4	46.6	75.4	low
Denmark.....	475	214	22.3	n.a.	19.5	average
Finland.....	343	26	28.4	21.9	22.5	average
Greece.....	293	8	37.1	31.4	14.3	low
Iceland.....	36	1	32.7	11.1	1.5	high
Ireland.....	406	47	46.8	6.9	1.0	low
Norway.....	336	32	18.5	16.7	20.5	low
Portugal.....	842	35	127.8	60.8	9.8	low
Spain.....	1,163	86	59.9	53.9	92.4	high
Sweden.....	758	-43	22.4	31.0	20.7	average
Switzerland <u>5/</u> .....	3,074	202	94.4	91.7	118.1	low
Turkey.....	229	11	33.2	59.0	4.1	low
United Kingdom.....	3,166	-145	23.4	93.9	102.0	average
Yugoslavia.....	150	36	14.3	9.3	6.6	high
Canada.....	2,603	56	39.3	31.4	46.4	low
Australia.....	1,880	493	67.8	16.4	17.2	average
New Zealand.....	146	-25	16.1	21.9	-8.9	average
<u>Latin America</u>						
Argentina.....	<u>6/</u> 304	87	28.8	16.1	-18.3	high
Bolivia.....	7	3	6.7	28.6	-1.1	high
Brazil.....	<u>6/</u> 370	-96	24.7	48.4	-12.0	low
Chile.....	77	-2	12.6	55.8	3.2	high
Colombia.....	106	10	22.8	58.5	-7.5	high
Costa Rica.....	16	3	12.9	12.5	-1.0	high
Dominican Republic....	42	21	24.3	16.7	-2.0	high
Ecuador.....	52	9	41.6	36.5	.4	low
El Salvador.....	44	18	29.5	52.3	-2.1	low
Guatemala.....	58	12	38.2	39.7	.1	average
Haiti.....	n.a.	n.a.	n.a.	n.a.	.8	high
Honduras.....	12	-1	13.6	0	-1.4	average
Jamaica.....	86	12	38.2	3.5	4.8	low
Mexico.....	<u>6/</u> 465	106	37.8	29.9	16.3	average
Nicaragua.....	32	15	31.1	0	<u>7/</u>	high
Panama.....	<u>6/</u> 38	7	20.0	<u>7/</u>	-2.3	average
Paraguay.....	4	2	10.5	52.1	-.5	high
Peru.....	135	18	24.3	46.7	5.7	high
Uruguay.....	189	-22	99.0	90.5	-15.6	average
Venezuela.....	738	155	74.6	59.5	5.3	high

Table 1.--International gold and foreign exchange reserves of the free world--continued

Country and area	Reserves as of December 31, 1963				Movement during decade 1953 through 1962	
	Total <u>1/</u>	Change during past year	Ratio of reserves to annual imports	Reserves held as gold <u>2/</u>	Long-term trend (Average annual change) <u>3/</u>	Degree of variation from trend
	Mil. U.S. <u>dol.</u>	Mil. U.S. <u>dol.</u>	Pct.	Pct.	Mil. U.S. <u>dol.</u>	
<u>Africa</u>						
Congo.....	n.a.	n.a.	n.a.	n.a.	-45.0	average
Ethiopia.....	66	1	60.6	3.9	1.2	low
Ghana.....	n.a.	n.a.	n.a.	n.a.	-29.8	average
Libya.....	129	33	52.7	8.5	10.8	low
Morocco.....	132	-51	29.9	31.8	n.a.	n.a.
Nigeria.....	254	-66	43.9	9.8	n.a.	n.a.
Rhodesia.....	n.a.	n.a.	n.a.	n.a.	8.7	low
South Africa.....	763	117	40.8	87.5	13.4	high
Sudan.....	133	-37	48.5	1.0	.2	average
Tunisia.....	64	2	29.1	6.3	n.a.	n.a.
United Arab Republic.	<u>6/</u> 216	21	25.1	80.6	-66.1	low
<u>Asia</u>						
Burma.....	185	19	80.1	27.0	-1.2	high
Ceylon.....	89	4	27.8	0	-10.3	high
China (Taiwan).....	237	113	67.1	21.1	9.6	average
India.....	607	95	29.0	40.7	-174.5	average
Indonesia.....	n.a.	n.a.	n.a.	n.a.	-6.9	high
Iran.....	246	22	49.0	65.0	2.2	low
Iraq.....	<u>6/</u> 218	1	66.7	46.8	-2.1	average
Israel.....	537	100	79.6	12.3	39.5	high
Japan.....	2,058	36	30.5	22.8	149.1	high
Jordan.....	72	14	51.1	2.8	2.7	low
Korea.....	132	-35	24.1	1.5	10.3	average
Lebanon.....	206	0	58.4	84.5	14.0	high
Malaysia.....	920	13	112.7	1.1	58.7	low
Pakistan.....	308	28	38.3	22.4	.8	low
Philippines.....	<u>6/</u> 89	14	12.9	28.1	-17.8	high
Saudi Arabia.....	<u>6/</u> 489	197	183.8	18.8	n.a.	n.a.
Syria.....	<u>6/</u> 36	0	16.0	52.8	-1.0	average
Thailand.....	n.a.	n.a.	n.a.	n.a.	21.0	average
Vietnam.....	168	15	60.9	0	n.a.	n.a.

1/ Includes a nation's gold tranche position with the International Monetary Fund (IMF) and some nonconvertible currencies for some nations.

2/ Gold tranche position included with gold.

3/ Based on straight line trend.

4/ Includes data for Luxembourg.

5/ Not a member of IMF, therefore has no gold tranche position.

6/ Reserves as of September 30, 1963.

7/ Less than 0.5.

n.a. = Not available.

Note: See appendix for technical discussion of items in this table.

second largest increase; its reserves of \$7,654 million at the end of 1963 were the largest of any foreign nation of the free world. In 1955, Germany took the number one position (excluding the United States) from the United Kingdom and has maintained that position. Today, it holds over 14 percent of the international liquidity held by all foreign nations of the free world. Denmark's holdings nearly doubled during 1963 because of tighter monetary policies by its Government. These policies led to a leveling off of imports, an increase in exports, and an inflow of funds for investments. Denmark's reserves cover only about 22 percent of its annual imports, but its potential for earning additional foreign exchange is high. Total reserves of Switzerland, for the first time, stand at over \$3 billion and almost cover the value of imports for a full year. Nearly 92 percent of its reserves are in gold. Other European developments during 1963 include a 32 percent increase in the reserves of Yugoslavia and a 13 percent increase in those for Austria and Ireland. Also, Portugal's reserves equal the value of 15 months of imports, one of the highest reserve-import ratios in the world. On the negative side, there were decreases of about 10 percent in reserves for Italy, 5 percent for Sweden, and 4 percent for the United Kingdom.

Australia increased its reserves by 35 percent; the addition of \$493 million was topped only by France and Germany. This improvement was the result of an increase in quantity and price of goods exported, particularly wool, and a strong inflow of capital from abroad. Canada's reserves increased only moderately, and New Zealand's reserves continued a long-term downward trend.

Latin America.--For Latin America, 1963 was a particularly good year. For the 19 countries included in table 1, reserves increased \$347 million, although the overall long-range trend for Latin America is a decline in reserves. The recent price increases on sugar, cocoa, and wool were primary factors causing the increase in reserves. Meat exports from Argentina and oil royalties to Venezuela assisted these two nations in netting large increases. Venezuela was also assisted by a change in its exchange rate system. Mexico's stable political status has attracted large quantities of capital from the United States and other areas, and expenditures of American tourists were also large.

Even though 1963 was a good year, Latin America's reserve situation is still generally weak. There have been large increases in the short-term debt of several central banks and reserves on a net basis are now at very low levels or even negative in some cases. Brazil particularly is in a very weak financial position.

Africa.--Africa continues in a state of change; meaningful statistics are not yet available for many of the newly independent nations. Many of these nations are still closely tied financially to their former colonial rulers, so foreign exchange reserves are unrealistic measures of their ability to import. For instance, reserves may be sufficient to finance higher imports but international agreements with former colonial powers may severely limit imports from the United States. These limitations are in addition to the normal limitations applicable to the analysis of external reserves, such as the size of a country's short-term foreign debt or its ability to borrow from international facilities.



For African nations on which data are available, the external financial situation is generally not good. Reserves decreased substantially in Morocco, Nigeria, and in the Sudan during 1963. Data in table 1 for Egypt (UAR), showing reserves increasing, are for the year ended September 30, 1963. More recent information indicates large losses for Egypt during the last quarter of 1963, and external short-term debt is now at a very high level.

Two bright spots in Africa are Libya and the Republic of South Africa. Libya's present position is entirely the result of an enormous increase in exports of crude petroleum. Alltime highs in gold production and in exports were the primary factors in South Africa's greatly improved position. Gold production was valued at just under \$1 billion and the nation holds between 85 and 90 percent of its reserves in gold. Import restrictions continue to be eased and might be removed in the near future.

Asia and Near East.--There are optimistic signs in a number of nations in Asia and the Near East, and only one of the 17 nations for which current data are available showed a decline in reserves. Japan's reserves increased only moderately but equaled over \$2 billion at the end of 1963, and foreign trade continued at a record level. Japan recently announced that its currency, the yen, is freely convertible for payments and transfers for current international transactions. It is the first self-governing area in the Far East to have a convertible currency.

The reserves of China (Taiwan) increased \$124 million in 1963, an increase of over 90 percent. This was due largely to increased export earnings from sugar, but earnings also grew substantially from other exports, indicating that Taiwan's position will probably continue to improve even when sugar prices return to a more normal level. High sugar prices have also assisted the Philippines in its balance of payments. The very large increase in Saudi Arabia's reserves was due to the settlement of a previous claim by the Government on several American oil corporations operating in the country. Oil exports also increased.

Israel's external reserves increased remarkably in 1963. Imports of goods and services increased by about 7 percent, while exports increased by nearly 19 percent. Earnings from citrus fruits and diamonds primarily account for the increase in export earnings. Although there remains a deficit on current account, it is more than covered by capital imports. The Israeli Government repaid some of its foreign debt and reserves now cover about 80 percent of the value of its annual imports.

India's reserves increased during the year, but its basic balance-of-payments position continues to exert serious pressures on the country's exchange reserves. Malaysia at present has ample reserves; recent increases in tin prices were helpful. However, this nation faces some difficulties in the future because of low rubber prices and its political, military, and economic difficulties with Indonesia. The external financial position of Korea, which was already weak, declined further during 1963. Measures have been taken to restrict imports and the country is still heavily dependent on foreign aid.

Long-term Trend and Fluctuation of Reserves.--Taking Western Europe, Canada, Australia, New Zealand, Japan and the Republic of South Africa as one group, there were only 6 out of the 24 nations in the group classified as having large fluctuations in their reserves. In South America there were 11 out of 20 such nations. In Africa there were only 7 less developed nations for which 10-year data were available; none of these experienced a high degree of fluctuation in reserves. However, a large percentage of the newly independent nations are subject to this financial malady. The nations of Asia as a group appear to be better off than those of Latin America but not as well off as those in Europe.

A nation's current position can be more accurately gauged when the historical background is also considered. A drop (or rise) in reserves during 1963 for a country with a strong 10-year upward trend cannot be viewed in the same light as an equivalent change for another country with a 10-year downward trend. Similarly, consider two nations with approximately equal changes in reserves during 1963 and with an approximately equal rate of change in reserves over the 1953-62 decade: The nation with a low degree of variation from the trend is generally considered better off than one with a high degree of variation. Long-term planning for importing is more difficult when the external financial picture changes radically from year to year. This is particularly true for the less developed nations in a weak external financial position. Such nations are often forced into borrowing heavily at high rates of interest when reserves are low. Foreign exchange is often used as rapidly as it is earned and is not saved for future use, because of the very strong desire to immediately import capital goods and, very often, food. A country with a low degree of fluctuation has inherently a discipline forced upon it which is absent in a nation with a high degree of fluctuation. Foreign exchange not yet earned is not easily spent.

In the absence of this built-in discipline, the less developed nations with high fluctuations need actively to develop policies whereby foreign exchange earned in times of plenty is rationed out over periods of scarcity. Some countries with this problem have been able to institute appropriate policies, although politically this is very difficult.

Furthermore, the causes of fluctuations in the highly developed nations are usually different from those in the less developed nations. Reserves in the developed nations are sometimes affected by great political crises that are, relatively speaking, not too likely to recur, such as the Suez Canal crisis of 1956 or the internal political strife in the Republic of South Africa in 1960. Also, a change in an exchange rate may cause capital to flow either into or out of one of the advanced nations at a great rate, depending on the action taken.

These forces are also operative in the less developed nations, but the situation is usually somewhat different. Most less developed nations must rely on one or two agricultural or other primary exports for foreign exchange earnings. Prices of these exports are continually changing, due to overproduction for the world market in some years and underproduction in others. Changes in the production level of agricultural commodities are often caused partly by the weather. In addition, a particular nation may have a small



crop in the same year that world market prices are low. Conversely, it may have a large crop when prices are high. These forces obviously lead to a considerable fluctuation in the level of reserves; such forces probably will continue to operate for some time to come. However, a number of financial arrangements are now in existence and others are being instituted to help the less developed nations during periods of scarcity of foreign exchange. Some of these arrangements are discussed in the section that follows.

### Commercial Exports of U.S. Agricultural Commodities and International Liquidity

For convenience, the term "sales for dollars" will often be used in the following material to replace the awkward term "commercial exports of U.S. agricultural commodities." Under either name, the concept always includes agricultural exports made strictly on a commercial basis plus agricultural exports sold essentially on a commercial basis which are facilitated by government assistance. This assistance takes the form of (1) extension of credit for relatively short periods, (2) sales of Government-owned commodities to exporters at less than domestic market prices, and (3) export payments in cash or in kind. International liquidity includes the total external reserves of a foreign nation of the free world, as measured by the International Monetary Fund. The external reserves of the United States are excluded from this report.

Relationship--Dollar Exports to International Liquidity.--During the decade 1954 to 1963 (fiscal years) commercial exports of U.S. agricultural commodities kept a rather constant relationship to the increasing size of international liquidity. During this decade sales for dollars averaged about 7.5 percent of total reserves held by foreign nations of the free world and the ratio varied only between 6.4 percent and 8.2 percent (table 2). Thus, from a medium- or long-range viewpoint, sales for dollars have held their own when measured against the world's ability to purchase goods and services in the international market.

On the average, for every \$1 million increase in total reserves of all foreign free nations, there has been a \$75,000 increase in agricultural sales for dollars. (The \$75,000 represents the slope of the line in figure 1.) However, data for the last 4 years suggest that the increase in total reserves has less effect on foreign market imports now than in earlier years. For every \$1 million increase in reserves in this period, there has been only a \$36,000 increase in sales for dollars. The ratio of sales for dollars to total reserves held by foreign nations has dropped steadily, although not drastically, from 8.2 percent in FY 1960 to 7.3 percent in FY 1963. These figures only quantify what has already become apparent: The impediment to a rapid growth in sales for dollars is no longer that of an overall shortage of dollars or other types of foreign exchange. External reserves no longer serve as a sufficient guide to the potential for marketing agricultural commodities in a large number of the highly developed nations. These nations count heavily on total sales for dollars and therefore play a large part in reducing the ratio of total sales for dollars to total international liquidity. The ratios for Japan and for Europe are particularly revealing in this respect (table 3).

Table 2.--Total international liquidity of foreign nations of the free world and U.S. commercial exports of agricultural commodities

Fiscal years	Total reserves <u>1/</u>	U.S. commercial agricultural exports	Ratio of exports to reserves
	Mil. U.S. dol.	Mil. U.S. dol.	Percent
1954.....	29,962	2,331	7.8
1955.....	32,132	2,278	7.1
1956.....	33,338	2,129	6.4
1957.....	34,504	2,771	8.0
1958.....	37,280	2,752	7.4
1959.....	33,803	2,465	6.6
1960.....	38,831	3,203	8.2
1961.....	44,081	3,393	7.7
1962.....	46,727	3,491	7.5
1963.....	48,475	3,545	7.3
			Average 7.5

1/ Reserves as of midpoint of the fiscal year (i.e., December 31).

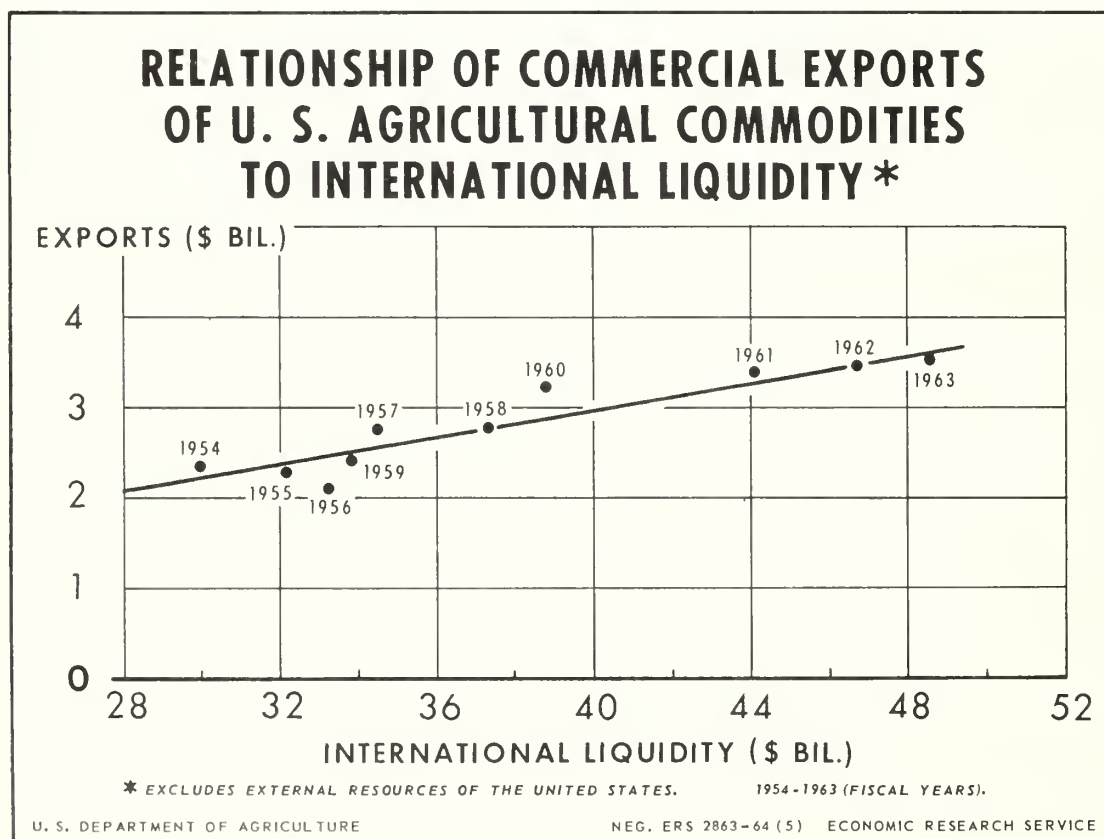


Figure 1

Table 3.--Commercial exports of U.S. agricultural commodities to major foreign markets and international reserves of these markets, fiscal years 1960-63

Country or area and item	1960	1961	1962	1963
-----Million U.S. dollars-----				
A. Commercial exports of U.S. agricultural commodities				
Japan.....	422	533	452	485
Canada <u>1</u> /.....	375	365	431	417
United Kingdom.....	431	440	446	359
West Germany.....	345	300	410	347
Netherlands.....	329	324	345	344
Italy.....	120	175	173	165
Belgium-Luxembourg.....	126	130	130	119
Spain.....	1	57	68	112
France.....	102	103	95	84
Denmark.....	63	48	56	72
Mexico.....	58	60	52	68
Venezuela.....	95	83	86	59
Switzerland.....	51	58	64	54
Total.....	2,518	2,676	2,808	2,685
Western Europe.....	1,701	1,792	1,951	1,891
Latin America <u>2</u> /.....	298	294	282	298
B. Total International reserves <u>3</u> /				
Japan.....	1,447	1,949	1,666	2,022
Canada.....	2,029	1,989	2,276	2,547
United Kingdom.....	2,815	3,727	3,324	3,311
West Germany.....	4,801	7,046	7,178	6,964
Netherlands.....	1,442	1,863	1,958	1,946
Italy.....	3,020	3,147	3,662	3,644
Belgium-Luxembourg.....	1,306	1,506	1,813	1,753
Spain.....	227	596	900	1,077
France.....	1,736	2,272	3,365	4,049
Denmark.....	331	288	286	261
Mexico.....	458	438	411	420
Venezuela.....	724	609	581	583
Switzerland.....	2,063	2,324	2,759	2,872
Total.....	22,399	27,754	30,179	31,449
Western Europe.....	21,319	26,429	29,285	30,350
Latin America <u>2</u> /.....	2,833	2,926	2,835	2,375

See footnotes at end of table.

Table 3.--Commercial exports of U.S. agricultural commodities to major foreign markets and international reserves of these markets, fiscal years 1960-63--Con.

Country or area and item	1960	1961	1962	1963
-----Percent-----				
C. <u>A</u> as a percentage of <u>B</u>				
Japan.....	29.2	27.3	27.1	24.0
Canada.....	18.5	18.4	18.9	16.4
United Kingdom.....	15.3	11.8	13.4	10.8
West Germany.....	7.2	4.3	5.7	5.0
Netherlands.....	22.8	17.4	17.6	17.7
Italy.....	4.0	6.6	4.7	4.5
Belgium-Luxembourg.....	9.6	8.6	7.2	6.8
Spain.....	.1	9.6	7.6	10.4
France.....	5.9	4.5	2.8	2.1
Denmark.....	19.0	16.7	19.6	27.6
Mexico.....	12.7	13.7	12.7	16.2
Venezuela.....	13.1	13.6	14.8	10.1
Switzerland.....	<u>2.5</u>	<u>2.5</u>	<u>2.3</u>	<u>1.9</u>
Average.....	11.2	9.6	9.3	8.5
Western Europe.....	8.0	6.8	6.7	6.2
Latin America <u>2/</u> .....	10.5	10.0	9.9	12.5
D. <u>A</u> as a percentage of foreign nation's total imports <u>4/</u>				
Japan.....	10.3	10.6	7.5	8.3
Canada.....	6.2	7.2	7.6	7.2
United Kingdom.....	3.6	3.6	3.6	2.0
West Germany.....	3.5	2.8	3.5	2.8
Netherlands.....	7.4	6.4	6.6	6.2
Italy.....	2.9	3.5	3.1	2.4
Belgium-Luxembourg.....	3.4	3.2	3.0	2.5
Spain.....	.1	6.5	5.2	6.2
France.....	1.8	1.6	1.3	1.2
Denmark.....	3.6	2.7	2.8	3.4
Mexico.....	5.3	5.1	4.6	5.7
Venezuela.....	7.4	8.6	8.0	5.3
Switzerland.....	<u>2.5</u>	<u>2.4</u>	<u>2.2</u>	<u>1.8</u>
Average.....	4.4	4.4	4.2	3.6
Western Europe.....	3.2	3.0	3.1	2.7
Latin America <u>2/</u> .....	2.9	2.8	2.8	3.0

1/ Excludes an estimated amount of intransit commodities shipped to Canada, placed in bonded storage, and subsequently shipped to other countries.

2/ Excludes Cuba.

3/ Reserves as of midpoint of fiscal year, (i.e. December 31).

4/ Total imports of all commodities, agricultural and industrial, from all nations.



Factors Influencing Dollar Exports and International Liquidity.--There are a number of factors causing a reduction in the ratio of sales for dollars to international liquidity of the developed nations and, thereby, the overall ratio. A few of the major factors are suggested here. On July 30, 1962, the European Economic Community put into effect a variable import levy on a number of U.S. agricultural exports. Overall, there was a 10 percent decrease in U.S. agricultural exports to the Common Market in FY 1963 as compared to FY 1962. During the same period, external reserves of the EEC countries increased about \$1-1/3 billion, or 7.3 percent.

Since World War II, Japan and West European nations have witnessed large productivity increases in both manufacturing and farming. The index of total agricultural production for Western Europe increased from 100 in the base period (1952/53 to 1954/55) to 124 in 1962/63. Of greater significance was the corresponding increase in the per capita index from 100 to 115. In Japan, total agricultural production increased from 100 in the same base period to 161 in 1962, and on a per capita basis the increase was from 100 to 148.

These increases have had a dampening effect on sales for dollars for some U.S. commodities. But weather, even with more scientific farming, is still the major determining factor in the size and quality of a given harvest. Weather is more generally a factor than external reserves in determining the volume of sales for dollars to the affluent nations in any given year. (As a result of the recent bad weather in Europe, sales for dollars to Europe are up in FY 1964.)

Another factor influencing the ratio of sales per dollars to external reserves is reflected in the principle that, just as individuals spend proportionately less on food as incomes rise, nations spend on food proportionately less of increases in foreign exchange earnings and reserves. This assumes, of course, that there is no increase in the quality of food consumed. Even if it is assumed that the food consumed is of higher quality, it seems only reasonable that an upper limit to a consumer's desire (and also a consuming nation's desire) to increase the quality of food will be reached. While the desire to increase quality is great at first, this desire would lessen at higher levels of quality and consumers would turn increasingly to other goods and services once the demand for a certain quantity and quality of food had been satisfied. Similarly, the affluent nations of the world probably divert increasing amounts of their foreign exchange reserves to the importation of other goods and services once a sufficient diet with ample variety is being consumed.

Thus, during recent years there has been in existence or there were created a number of factors affecting the growth in sales for dollars. Some of these came about as the natural result of various economic forces. Others were the result of direct political actions. At the same time, one of the major limitations on the size of total international liquidity was disappearing. The currencies of most leading European nations became convertible on December 1958, but not until February 15, 1961, did 9 of these nations declare their currencies freely convertible under the conditions of Article VIII of the International Monetary Fund Agreement, thus formally recognizing what had already become a fact. As a result of the de facto convertibility, the



reserves of Western Europe increased approximately 50 percent over a 4-year period. The interaction of all the various forces could only lead to a lessening of the ratio of sales for dollars to international liquidity.

Adequacy of International Liquidity.--From the foregoing, it appears that a revision in the basic principles of the present world monetary structure to substantially increase total international liquidity would do little to increase our commercial exports of agricultural commodities, all other factors remaining constant. Of much more importance is the uneven distribution of the present volume of international liquidity. An improvement in this respect would almost inevitably lead to a substantial increase in sales for dollars. The less developed nations represent huge potential markets which lack only the foreign exchange to buy goods which they cannot grow or manufacture. With few exceptions, however, these are the very nations that have a long-term record of very slow growth in foreign exchange holdings or that have in a number of cases an absolute decline in reserves during the last decade. Also, the level of reserves varies greatly from year to year in many of these nations, making it extremely difficult to plan purchases from one year to the next (table 1). This is especially true when foreign exchange holdings are a prime factor to be considered in a nation's planning.

Until these nations obtain international purchasing power, they are being assisted in part through concessional sales made under the Agricultural Trade Development and Assistance Act of 1954 (Public Law 480). In addition to assisting the less fortunate nations of the world the P.L. 480 program (1) stimulates a taste and demand for U.S. agricultural goods and (2) establishes financial and commercial contacts that become extremely useful once a nation switches over to commercial imports. A recent example of this is the case of Spain.

Following its 1959-60 stabilization program, Spain's total external reserves started increasing rapidly. Previously the country received large quantities of U.S. agricultural commodities under P.L. 480. As Spain's total reserves moved from \$227 million in 1960 to \$1,077 million in 1963, commercial exports to Spain increased from \$1 million to \$112 million. Sales for dollars as a percent of total reserves jumped from less than 0.5 percent to nearly 10 percent, indicating that our exports of agricultural commodities to them increased at a much faster rate than their reserves increased. Also, U.S. exports to Spain as a percent of its total imports jumped from less than 1 percent to approximately 6 percent. This occurred while agricultural imports from all sources as a percent of total imports remained fairly constant, indicating an increasing preference for U.S. commodities. The taste and demand for U.S. goods was directly stimulated by the goods received under P.L. 480, and the financial and commercial channels were firmly established when the change to commercial imports occurred. Japan is another case in which the demand for U.S. agricultural commodities was stimulated by food and fiber received under P.L. 480 and other U.S. Government programs.

In addition to being helped by P.L. 480, the less developed nations are in effect augmenting external reserves in a number of other ways. The United States continues to grant and loan dollars to these nations through its foreign aid programs. The International Monetary Fund in 1963 created a special

drawing facility to compensate for temporary shortfalls in export receipts which are due to crop failures, a sudden unexpected and temporary drop in world prices of commodities they produce, or other factors beyond member countries' control. Also, international commodity agreements have been of some assistance in maintaining short-term price stability and in partially inhibiting long-term price declines through the imposition of import and export quotas or various production controls.

Conclusions.--From the foregoing, there appear to be three classifications of nations. First, there are the highly developed nations with sufficient or more than sufficient external reserves. An increase in their reserves is not likely to lead to a substantial increase in our agricultural exports to them. Second, there are the less developed nations which are usually extremely short of foreign reserves. For some time to come they will represent commercial markets only on a limited basis. Third, there are countries that have reached a "takeoff" stage. Their internal wealth and external reserves are beginning to increase; yet, there is still a large requirement for food and fiber which U.S. agriculture might supply. External reserves are a good indicator of market potentiality for these nations. Spain is one good example. Other nations that are probably entering this position are Israel, Greece, Taiwan, the Philippines, Thailand, and Mexico. American exporters of agricultural commodities should be especially alert to opportunities for trade in these nations.

## APPENDIX

### Technical Notes to Items in Table 1

Total Reserves.--These figures include a country's official holdings of gold and foreign exchange, plus its Gold Tranche Position with the International Monetary Fund (IMF). The figures, therefore, represent a nation's international liquidity as compiled by the IMF and reported in International Financial Statistics. Insofar as possible they have been compiled so that they reflect a nation's ability to import foreign goods and services. Some nonconvertible foreign exchange has been included with the figures, but the amounts are very small and are assumed to be useful in a country's import program, even though they are nonconvertible.

The Gold Tranche Position (GTP) has been included as part of a nation's foreign reserves, since a member of the IMF may draw the quantity of foreign exchange it needs from the IMF essentially automatically to an extent equal to its GTP. The size of the GTP is derived as follows:

When a nation joins the IMF (as of April 2, 1964, there were 102 members) a quota (Q) is assigned to a nation based on several economic factors, such as size of national income and volume of foreign trade. The quota is met by a payment to the IMF, officially designated as a subscription. The subscription is divided into two parts--25 percent of which is Gold (G) and 75 percent of which is a nation's own local currency (LC). For some nations the gold subscription may initially be less than 25 percent of its quota, but subsequently this subscription must be brought up to this level. The GTP is calculated by subtracting the IMF's holdings of a nation's currency from that nation's quota. Thus,  $GTP = Q - LC$ . If, for a particular nation and its currency, no further transactions took place, its GTP would equal G, which is usually equal to 25 percent of quota.

In all probability the GTP for a particular country, say Country A, will change from its original position. The change is brought about either by increases or decreases in the Fund's holdings of Country A's currency (LC). It should be noted, however, that GTP is never negative. If and when LC becomes larger than Q, the GTP becomes zero. Increases or decreases in LC have no affect on GTP as long as LC is larger than Q.

When Country A needs foreign exchange it can obtain it by depositing a quantity of its own currency with the IMF and drawing out the foreign currency it needs; for example, the currency of Country B, although there are certain limitations as to the currencies that can be drawn at any given time. <sup>1/</sup> This action obviously increases LC above its original level for Country A and decreases it for Country B. There is a corresponding decrease in the GTP for Country A and an increase in the GTP for Country B assuming Country B is in the gold tranche (that is, LC is less than Q). Country A can continue drawing foreign exchange and depositing its own currency until the IMF holds a quantity equal to 225 percent of quota. The conditions for drawing, of course, become increasingly difficult as drawings continue, and they are not automatic once a country has fully drawn against its gold tranche.

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<sup>1/</sup> Country B's currency is almost always a convertible currency, often called a "hard" currency.

Country A must at some future point repay its drawings either in gold or a convertible currency; usually the latter is used. This is called a repurchase, since technically Country A buys back its own currency from the IMF. This increases its GTP and reduces that of the country whose currency was used in the repurchase. The same currency need not be used in a repurchase that was used in a drawing.

It is evident from the foregoing that Country B's gold tranche position can be changed without it taking any positive action in its relationship with the IMF. Without some special allowance, Country B might have its GTP reduced below its original contribution of gold simply by the actions of other nations. Therefore, the IMF has a regulation which states that repurchases (repayments) cannot be made in a particular currency if such repurchases increase the Fund's holdings of that currency about 75 percent of quota. In other words, Country B's gold tranche position can be reduced below G only by its own drawings.

There are other means whereby a nation's GTP is changed, but the transactions described above are the normal operational procedures.

Ratio of Reserves to Annual Imports.--Annual imports are taken c.i.f. as reported in IMF International Financial Statistics, March 1964. For most of the developed nations the data represent imports during calendar 1963. For most of the less developed nations, imports are for the fourth quarter of 1962 and the first 3 quarters of 1963. For Saudi Arabia data are for 1961, the latest available.

Long-term Trend.--The figures for this item represent the annual rates of change in the long-range trend of reserves. This trend is measured by the slope of the straight line which best describes the movement of reserves during the decade 1953 through 1962. Mathematically, the figures represent b in the formula for a straight line  $Y = a + bX$ . The principle of "least squares" was used to determine the straight line that best describes the trend of reserves. Basically, the principle of least squares states that the best line of fit is the one that minimizes the sum of the squared error; that is, the sum of the squared differences between actual observations and estimates given by the regression line.

Degree of Variation from Trend.--The classifications for this item were derived by first calculating the standard error of estimate of the data for 1953 through 1962. A standard error of estimate is the average of the deviations about the straight line trend (the line of regression). On an absolute basis the standard error of estimate for a country with a relatively large quantity of foreign exchange is not comparable with that for a country with a significantly smaller quantity. To make the various estimates comparable, they were expressed as a percentage of the respective average reserves held over the 10-year period. The results (one form of a coefficient of variation) were then arranged in descending order and the respective countries divided into three groups. The countries in the upper third were assigned a "high" degree of variation, those in the middle an "average" degree of variation, and those in the lower third a "low" degree of variation. It should be noted, therefore, that the degrees of variation are on a relative basis rather than on any absolute scale.



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